ABSTRACT

RESEARCH PAPER: Optimal Bus Stop Spacing: IndyGo and Analysis of the Central Ohio Transit Authority's BSSIP

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Fixed-route bus transit service areas and ridership fluctuate for myriad and uncontainable reasons. The density and development they serve have life spans causing trip generators to increase and decrease, and bus transit networks must change with them. Bus stops are placed secondary to routes, and are commonly influenced by various and unique conditions. Optimal bus stop spacing, under ideal pedestrian conditions, has been established as every ¼ mile, however stop spacing in actuality can vary widely. This research will analyze the Bus Stop Service Improvement Project undertaken by the Central Ohio Transit Authority to comprehensively address the issue of bus stop spacing within their service area. This research seeks to determine if the benefits of standardizing optimal spacing network-wide is balanced by the cost of its implementation, and if it should then be recommended to other transit agencies, such as Indianapolis' own IndyGo system, which have not holistically addressed bus stop spacing.